**ACE AP Calculus – AB**

**Franklin Central High School**

**2017-2018 School Year**

**Mr. Woodrow**

**Course Requirements**

*The following items must be brought to class each day:*

1. Text: Calculus for AP®, Larson & Edwards 11e, Cengage Learning, 2017.

2. Handouts of Notes and HW Worksheets.

3. Graphing Calculator **that has adequate battery life**. Prefer TI-84+ or better.

4. Pencil (I would prefer that all your work be done in pencil.)

6. Organization. No special binder or folder is required, but you will find a binder (at least 1”) will be helpful in

 organizing your notes. Textbook Homework can be done on loose-leaf ruled paper, plain computer paper or

 graph paper.

**Course Information**

 Calculus AB, Advanced Placement ACE is a course that provides students with the content

established by the College Board. Topics include:

(1) functions, graphs, and limits: analysis of graphs, limits of functions, asymptotic and unbounded behavior, continuity as a property of functions

(2) derivatives: concepts of the derivative, derivative at a point, derivative as a function, second derivatives, application and computation of derivatives, and

(3) integrals: interpretations and properties of definite integrals, applications of integrals, fundamental theorem of calculus, techniques of antidifferentiation, and numerical approximations to definite integrals. The use of graphing technology is required.

A comprehensive description of this course can be found on the College Board AP Central Course Description web page at:

https://apcentral.collegeboard.org/pdf/ap-calculus-ab-and-bc-course-and-exam-description.pdf?course=ap-calculus-ab

• Recommended Grade Level: Grades 11 or 12

• Recommended Prerequisite: Pre-Calculus CP Grade A, Pre AP Pre-Calculus A, B, or C

**Grading Procedures**

**1. Homework.** In each section of our text, you will be given a listing of problems that I feel are important to your understanding of the material. The Homework will come in two varieties: **Textbook** and **Worksheet**. The Textbook HW assignments are graded only on a 10 point completion scale.

The Worksheet HW assignments will also carry a 10 point grade based on a combination of accuracy/completion. You will find out quickly that the key to a good grade in the HW category will be doing BOTH of these assignments each section.

Note: Not all sections (lessons) will have a Textbook HW. All sections (lessons) will have a Worksheet HW, however. **Quiz content usually includes items found in the worksheet assisgnment, but there are occasions where the some quiz problems can closely resemble what is found in the textbook assignment.**

I cannot emphasize enough how important it is for you to keep up with the daily homework.

Johnny Student – Period 6

HW 3.2

p. 172: 5, 11, 15, 17, 19, 27, 29, 39, 43, 46

**Helpful Hints to Making Textbook Homework “Work for You.”**

* **1. Clearly label each Textbook HW with your name, period,**

 **the Assignment Section Number, page(s) and problem numbers.**

 2. Write (or paraphrase) out the directions for each group of problems.

 3. Document the problems that you needed assistance with. That way you know to go back and look at them

 again before a test or quiz.

* What is written in bold above is a requirement. **You will lose 1 point for not doing this correctly.**
* **YOU MUST WRITE OUT THE PROBLEM AND SHOW ALL NECESSARY WORK TO RECEIVE CREDIT FOR TEXTBOOK HW ASSIGNMENTS. Problems with unsupported answers will be treated as unattempted.**

**2. Section Quizzes.** Almost every other day and after every section, you will take a short quiz that covers the material presented the day (or two) before. Most quizzes will be worth 10 points and will contain three multiple choice problems and/or one free response problem. Multiple choice problems will always be worth 2 points each. Free response problems will always be worth 4 points each. Some quizzes may feature 5 multiple choice problems worth 2 points each.

You will be allotted 15 minutes for each quiz. Some quizzes will allow the use of a calculator but most will not.

**If you are absent on the day of a quiz or any day where material was presented that appears on a quiz, you will have to make arrangments to make that quiz up either during SRT, before school or asfter school. You will have an equal number of days to make up the quiz that you were absent.** It is strongly suggested you don’t make-up a quiz during class time. you elect to make up a quiz during class, you are responsible for the material presented that day.

**Failure to make up a quiz in the time allotted will result in a zero.**

3. **Enrichment** Occasionally, you will have an additional required assignment to work on outside of the homework in the textbook. These assignments may be in the form of short labs, worksheets, games, sample AP questions or CML practice tests. These assignments are typically checked for completion only, but may occasionally be graded for accuracy.

**4. Unit Exams.** At the conclusion of each unit we will have an exam. Each exam will be worth 100 points. The exams will be a combination of multiple choice and multi-part free response questions. Each of these two sections will be further divided into a “with calculator” and a “without calculator” section.

**Section 1**: 5 Multiple Choice – (With calculator) Each problem is worth 1 point each. 5 points total.

**Section 2**: 1 Free Response – (With calculator) The problem is worth 9 points . 9 points total.

**Section 3**: 10 Multiple Choice – (Without calculator) Each problem is worth 1 point each. 10 points total.

**Section 4**: 1 Free Response – (Without calculator) The problem is worth 9 points . 9 points total.

**If you are unable to take the Unit Exam due to absence (either the day of the exam or a day prior), the make-up policy is the same as with quizzes. The make-up exam will typically NOT be the same as the original exam.**

#### Classroom Rules

* **Tardies.** I DO COUNT THESE. Late to my class is defined as not being in the room at the end of the bell. The following penalties will occur:

**Note: Tardies accumulate until the end of a semester.**

* **Restroom Use or Locker pass.** You get 3 passes per semester.
* **Respect.** Respect all others at all times. Pay attention when I am addressing the class and while another student is addressing the class. Respect one another's property and that of the room.
* **Progress Reports.** You can easily check your grades online at any time. I am pretty quick about entering grades. Exam grades may take an extra day or two. If you happen to need a printout of your grade report, let me know in person or by e-mail and I can have one prepared for you. The best way to check your grade is logging on Infinite Campus.
* **Be Here.** Limit your absences to an absolute minimum. Getting behind in AP Calculus is not an enjoyable experience.
* **Cell Phones.** Once the bell rings starts, cell phones are to be completely out of sight for the duration of class.

**Important Information**

**After School Help.** KEEP IN MIND THAT THE SCHOOL DAY DOES NOT HAVE TO END AT 3:00!

Since this is a college course, I will leave it at your discretion as to when you should meet with me. If at any point you still have questions over a particular homework assignment, please take advantage of this time. I will typically be in my room each morning at 7:10 and until 3:30 pm each afternoon except Mondays and Wednesdays.

**Laptops/Tablets** You are to not have your laptops/tablets out and open unless directed by me to do so.

**Food.** No food in classroom.

**AP Exam.** On Tuesday, May 9th , 2017 you will all be taking the Advanced Placement Calculus AB Exam. By performing well on this exam you will have the opportunity to test out of math completely at the college level or to take an advanced course earlier. There is no cost. A score of 4 (which is approximately 60% of the problems answered correctly) or 5 will get you credit virtually at any college or university. FCHS has a strong reputation for success on the AP Calculus Exams. Over the past several years, the the passing rate is over 70%

**Final Semester Grades.** Plenty of opportunity is given in the form of extra credit and benefits to assist grades. Powerschool is set to round grades up from the hundredths decimal place. For example an 89.50% will be an A-. An 89.49% is a B+ . School policy dictates that teachers round from the nearest tenth of a percent (not hundredth). **Please do not ask me to “bump” grades up at the end of a semester. I will not do it.**

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| **Percentage** | **Letter Grade** | **Percentage** | **Letter Grade** | **Percentage** | **Letter Grade** |
| 92.50-100% | A | 81.50-82.49% | C+ | 64.50-65.49% | D- |
| 91.50-92.49% | A- | 74.50-81.49% | C | Below 64.50% | F |
| 90.50-91.49% | B+ | 73.50-74.49% | C- |  |  |
| 83.50-90.49% | B | 72.50-73.49% | D+ |  |  |
| 82.50-83.49% | B- | 65.50-72.49% | D |  |  |

**Absences and Make-Up Lectures.** If you are absent or know you will be absent in the future, I strongly encourage you to seek internet resouces to familiarize yourself with the missed topic. Youtube is a fantastic resource – all you need to do is enter the concept name in the search field. You will also notice that your textbook contains many QR Codes with links to video demonstrations of solutions to Examples and HW Problems. Please use this resource as it can be invaluable.

**Graphing Calculators.** It is your responsibility to make sure it is appropriately charged at all times. I prefer TI-84 or better calculator. If you have a different name brand, it is your responsibility to know how to use the calculator.

**Study Groups.** I cannot emphasize enough the benefit of getting together with a small group on a regular basis and working together on Calculus Homework. You will find that if you are struggling with the concepts and truly use this opportunity wisely, that it can have amazing consequences.

**Letters of Recommendation.** As you progress throughout your junior year, you may find interesteing and awarding summer STEM activities/internships in which you would like to participate. If you need a letter of recommendation, from me feel free to ask. I just ask that you give me at least 10 days to 2 weeks to complete it. Next year, many of you may need letters for college entrance and scholarships. I am available for to write those as well. The process your senior year is a bit different as we will use the Naviance program. More information on this will come next year.

**Final Thoughts.** Throughout the year, you will go though a whole world of emotions with AP Calculus. You will experience joy, frustration, anger, humiliation, etc. The only thing that I ask of you all is that you focus on the LEARNING that’s taking place – not so much the grades. Allow the grades to take care of themselves. This class can be a fun and rewarding experience – even if you don’t consider yourself a natural STEM student. You have a much larger goal in this class – and that is how prepared you can become from now until May 9, 2017 – the day of the AP Calculus Exam. The students who have gone before you at FCHS have done well on this exam…you will too!